REMARKS

This amendment is responsive to the non-final Office Action issued December 9, 2011. Reconsideration and allowance of claims 3, 4, 12, 14, 16-18, 20-22, and 24-28 are requested.

The Office Action

Claims 3, 4, 12, 14, 16-18, 20-22, 25, and 27-28 stand rejected under 35 U.S.C. § 103 over Seely (US 2003/0117296) as modified by Zaleski (US 2003/0101076) as further modified by either one of Kawamura (US 4,931,864) or John (US 4,974,598).

Claim 22 stands rejected under 35 U.S.C. § 101.

Claims 24 and 26 were indicated as containing allowable subject matter.

The Claims Distinguish Patentably
Over the References of Record

Claim 12 calls for combining a series of medical measurement values of the histogram into a cumulative curve and displaying the cumulative curve superimposed on the histogram with the cumulative curve and histogram sharing a common scale. This histogram 518, 538 of Seely represents frequency of occurrence on an x-axis and an amount of deviation on an x-axis. Seely does not suggest combining the values in each of the bins of the histogram to form a cumulative curve. Lines 522, 542 of the log-log plots 520, 540 of Seely, referenced by the Examiner, are a linear representation of the frequency distribution of the histograms, not a cumulative curve.

Moreover, lines 522, 542 do not share a common scale with the histograms. Lines 522, 542 represent log-log scale plots. Moreover, Seely does not suggest displaying the lines 522 and the log-log plots 520, 540 in a superimposed fashion. Rather, they are displayed in separate plots or displays.

Paragraphs [0058] and [0060] of Zaleski, which describe comparing an expected trajectory with an actual trajectory, do not cure these shortcomings of Seely. Superimposing and actual and an expected curve does not teach superimposing a histogram with a different type of curve, particularly a cumulative curve.

Kawamura does not cure this shortcoming. Kawamura is directed to a technique for rendering backlit objects and, it is submitted, is not material to the present claims.

John, like Seely, discloses curves and discloses a histogram, particularly a phase histogram. John does not disclose superimposing the phase histogram with raw, average, or reconstructed EKG waveforms or the other described waveforms in column 11, lines 28-48. Indeed, all that John suggests superimposing in block 62 of Figure 4 is confidence intervals. Confidence intervals are merely representations of the accuracy with which each data point was measured, for example, a data point may have been measured to within ±2%. The confidence intervals merely indicates that a degree of variability which the curve might possibly have at each data point based on the confidence in the accuracy of the underlying measurements. Superimposing confidence intervals does not in any way suggest superimposing histograms.

Accordingly, it is submitted that claim 12 and claim 24 dependent therefrom distinguish patentably and unobviously over the references of record.

Claim 20 calls for displaying the histogram with the cumulative curve superimposed, the histogram and cumulative curve having common axes and common scales. To the contrary, Seely displays the histograms 518, 538 in different plots displaced from lines 522, 542 in the separate log-log plot. Seely does not superimpose a histogram and curve values. Paragraphs [0088]-[0089] of Seely, referenced by the Examiner, do not disclose or fairly suggest a superimposed histogram and cumulative curve, much less with common axes, much less with common scales.

Moreover, claim 20 calls for a cumulative curve indicative of the medical measurement data which was converted into the histogram and being cumulative of the series of histogram values. The lines 522, 542 of the log-log plots 50, 540 of Seely, referenced by the Examiner, represent a linear representation of the frequency distribution of the histograms 518, 538 on a log-log plot of frequency versus variation. Thus, the log-log plots 520, 540 are not cumulative curves formed by combining the series of medical values of the histograms.

The Examiner asserts that Zaleski compares a model and actual trajectory to determine a degree of likeness or sameness. Comparing a model and actual trajectory does not generate a cumulative curve, much less a cumulative curve which is displayed superimposed on a histogram, much less a histogram and a cumulative curve having a common axis, much less a histogram and a cumulative curve having common scales.

Kawamura is not directed to analogous prior art. Kawamura is directed to a device for forming an image, such as a television, when the principle object is backlit.

John, at column 11, lines 26-48 and Figure 4, item 62, referenced by the Examiner, does not cure this shortcoming of Seely. This portion of John does not describe superimposing histograms and wave shapes. Box 62 suggests displaying wave shapes with superimposed confidence levels. However, note the semicolon after "intervals," John does not disclose superimposing wave shapes with phase histograms.

Moreover, the Examiner indicated allowable subject matter in claims 24 and 26 which, like claim 20, call for the cumulative curve and histogram to be superimposed with common axes and scales.

Accordingly, it is submitted that claim 20 and claims 3, 4, 21, and 27 dependent therefrom distinguish patentably over the references of record.

Claim 22 has been amended to add "non-transitory" as suggested by the Examiner. With this amendment, it is submitted that the 35 U.S.C. § 101 rejection has been resolved.

Claim 22 has further been amended to incorporate the subject matter of allowable claim 24.

Accordingly, it is submitted that claim 22 distinguishes patentably over the references of record.

Claim 28 calls for displaying a cumulative curve superimposed on histogram data as medical data is received with the cumulative curve and the histogram data sharing common axes.

Seely makes no suggestion of superimposing a curve on histogram data, much less superimposing a cumulative curve on histogram data as medical

measurement data is received. Rather, Seely teaches that the histogram data 518, 538 should be displayed in different windows from the log-log plots 520, 540. Seely does not disclose superimposing lines 522, 542, or any other lines or curves, on the histogram displays 518, 538.

Zaleski fails to cure these shortcomings of Seely. Zaleski determines a sameness measurement between expected and actual trajectories for various physiological parameters. There is no suggestion of histogram data or a cumulative curve, much less any suggestion or teaching of superimposing any curve on histogram data, much less a cumulative curve on histogram data as medical measurement data is received, much less with common axes.

Kawamura, which is directed to rendering images of a backlit principle object on a television or similar rendering device does not cure these shortcomings of Seely. John, which discloses superimposing confidence windows on curves to show the range of variance which this curve might have at each point due to a lack of confidence in the measured value at each point. Superimposing confidence intervals in no way suggests superimposing the curve and a histogram, much less superimposing a cumulative curve and a histogram, much less a cumulative curve and a histogram sharing common axes.
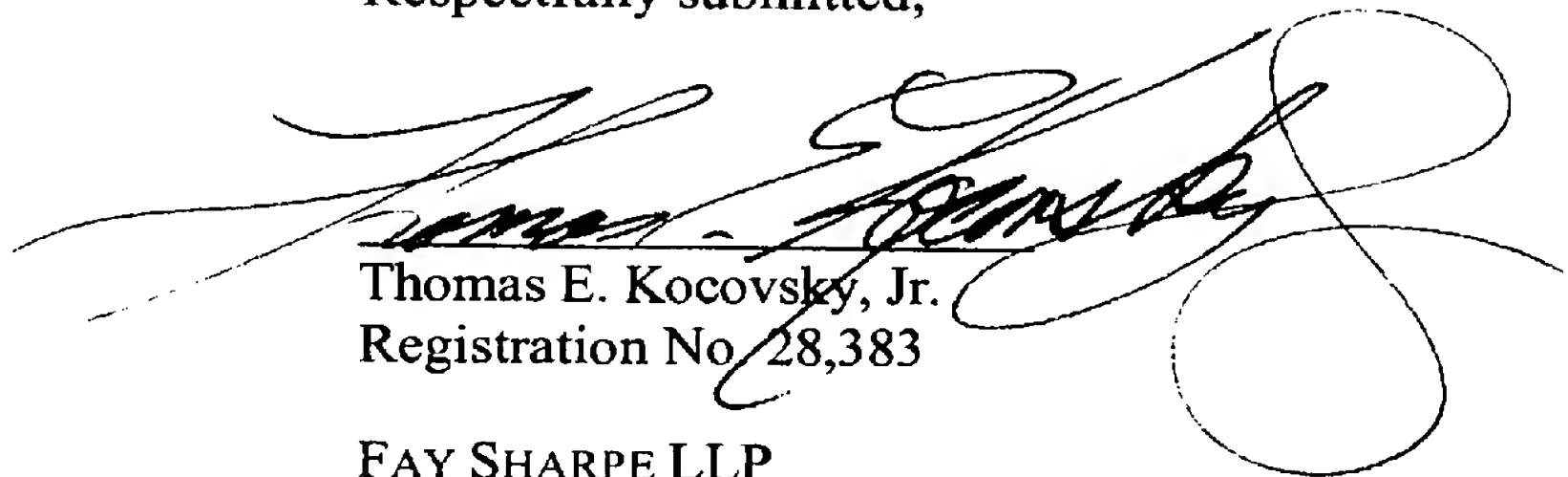
Accordingly, it is submitted that claim 28 and claims 14, 16-18, 25, and 26 dependent therefrom distinguish patentably over the references of record.

CONCLUSION

For the reasons set forth above, it is submitted that claims 3, 4, 12, 14, 16-18, 20-22, and 24-28 distinguish patentably over the references of record and meet all statutory requirements. An early allowance of all claims is requested.

In the event the Examiner considers personal contact advantageous to the disposition of this case, the Examiner is requested to telephone Thomas Kocovsky at 216.363.9000.

Respectfully submitted,

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